

REMARKS

Claims 19-38 were pending when the Office Action was mailed. Applicants herein amend claim 31 and do not cancel or present any new claims. Accordingly, claims 19-38 remain pending.

The Office Action rejects claims 31-38 under 35 U.S.C. § 101. Applicants herein amend claim 31 to address the Examiner's concerns and respectfully request that the Examiner reconsider and withdraw this rejection.

The Office Action rejects claims 19-38 under 35 U.S.C. § 103(a) over Geyer and Souder. Applicants respectfully traverse these rejections.

Each of applicants' independent claims recites synchronizing copies of a system object by first determining whether all other computers storing a copy of the system object are available to modify their copies and, if so, notifying each of the computers of the modification. In other words, computers are not notified of a modification until it is determined that all of the computers storing a copy of the object are available to update their copies. For example, claim 19 recites "when it is determined that each computer that stores a copy of the first system network object is available to modify its copy, synchronizing the first system network object by notifying each computer that stores a copy of the first system network object of the modification." Claim 24 recites "when it is determined that each computer that stores a copy of the first system network object is available to modify its copy, synchronizing the first system network object by notifying each computer that stores a copy of the first system network object of the modification." Claim 31 recites "a component that, when it is determined that each computer that stores a copy of the first system network object is available to modify its copy, synchronizes the copies of the first system network object by sending a notification to each computer that stores a copy of the first network object." The relied-upon references do not disclose these features.

The relied-upon portions of Geyer and Souder describe notifying nodes in a network storing copies of an object of a modification to the object without first determining whether each of the nodes is available to update its copy. For example, in Geyer "whenever one client seeks to modify an object, it notifies the other clients of the modification, and awaits receipt from the other client that the request has been processed." (Geyer, ¶ [0041]). Similarly, in Souder "each update or modification of a data structure is immediately replicated to all other replicas." (Souder, 2:2-3) (emphasis added). This is in contrast to applicants' technique, which first determines whether all of the nodes are available before notifying the nodes of a modification. Neither Geyer nor Souder describes or suggests determining whether all nodes storing a copy of an object are available to update its copy of an object prior to notifying the nodes of any modification to the object, as the claims recite. Accordingly, claims 19, 24, and 31 are patentable over the applied references, as are their dependent claims 20-23, 25-30, and 32-38.

The Office Action points to Souder at 2:1-5, 2:8-10, and 2:16-18 as disclosing preventing the modification of object copies unless and until a confirmation is received from all other clients. The relied-upon portions of Souder describe a "synchronous replication" technique in which modifications to a data structure are immediately replicated to all other replicas of the data structure and the modification is not allowed to complete until all other replicas of the data structure have been updated, thereby guaranteeing that replicas of the data structure remain the same. Souder specifically teaches away from using synchronous replication in environment with nodes that are not available to update their copies of an object, stating that synchronous replication "does not work at all for dormant clients," which are clients "that cannot perform an update to a data structure within a predetermined time period." (Souder, 2:10-16). Applicants respectfully submit that the relied-upon portions of Souder are inoperable to address the situation that applicants' claims address (i.e., nodes that are not available to update their copies). Thus, even if the relied-upon portions of Geyer describe or

suggest an environment that includes dormant clients, it is improper to combine the teachings of Geyer and Souder as Souder teaches away from such a combination. (MPEP § 2145(X)(D)(2)). Accordingly, claims 19, 24, and 31 are patentable over the combination of Geyer and Souder, as are their dependent claims 20-23, 25-30, and 32-38.

Geyer is directed to a technique for sharing content in a collaborative client/server or peer-to-peer environment using "generic shared objects" (GSOs). (Geyer, Abstract). In Geyer's client/server environment, a "collaboration server" manages GSOs by distributing copies to clients for local use, processing requests to modify the GSOs, and notifying interested clients of any modifications. When a client wishes to modify a copy of the GSO, the client sends a request to the collaboration server for authorization. (Geyer, ¶ [0039]). If the client is authorized to modify the GSO, the collaboration server executes the request on the GSO and sends to the client a copy of the modified GSO or a message that the modification was accepted. (Geyer, ¶ [0039]). Thus, a single computer, the server, is responsible for managing each GSO.

In Geyer's peer-to-peer environment, each peer runs an instance of the collaboration server and is, therefore, capable of managing GSOs. When one peer wants to modify a GSO, it notifies the other peers and awaits receipt from the peer that manages that GSO that the requested modification has been processed. The computer that manages the GSO, as in the client-server environment, may reply with a copy of the modified GSO or a message indicating that the modification was accepted and may notify any interested peers if the GSO is modified.

The Office Action asserts that applicants' interpretation of Geyer relies on what appears to be a typographical error in Geyer. (Office Action, December 18, 2008, Page 2). The Office Action's interpretation of Geyer relies on the assumption that every peer in the peer-to-peer implementation of Geyer's collaboration system is responsible for managing each and every shared object in the environment by virtue of having the

functionality of the GSO server. However, this feature is neither mentioned in Geyer nor inherent from Geyer's disclosure. "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." (MPEP § 2112(IV)) (emphasis in original). Applicants respectfully submit that applicants' interpretation, in which a GSO is managed by a single client in the peer-to-peer implementation, is just as plausible as the Office Action's interpretation for at least two reasons. First, applicants' interpretation is consistent with the client/server implementation in that a GSO is managed by a single computer. The client/server and the peer-to-peer implementations differing in that in the client/server implementation every GSO is managed by the server whereas in the peer-to-peer implementation different GSOs may be managed by different clients. Second, the Office Action's interpretation relies on an assumed typographical error, whereas applicants' interpretation is consistent with the language and context of Geyer. The Office Action fails to point to any portion of Geyer that would lead one to believe that its interpretation is inherent from that which is described in Geyer. Applicants respectfully request that the Examiner provide further evidence to support both his interpretation of Geyer and the existence of a typographical error in Geyer.

In view of the above remarks and amendments, applicants believe the pending application is in condition for allowance and respectfully request reconsideration and a prompt Notice of Allowance.

Please charge any deficiencies or credit any overpayment to our Deposit Account No. 50-0665, under Order No. 418268847US from which the undersigned is authorized to draw.

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Respectfully submitted,

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